

AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

Claims 1 - 2 - (Canceled)

Claim 3. (Currently amended) Process ~~according to Claim 1 or 2, wherein the pressure in step b) is from~~ for producing an article in a form of a sheet comprising a single-layer homogeneous matrix containing at least one active substance for an application site, said at least one active substance being selected from crop protection agents, biocides, fertilizers, plant strengtheners, cosmetic active principles and fragrances, said process comprising the following temporally and spatially separate steps:

a) applying the at least one active substance as a flowable medium having a viscosity of at least 1000 mPa•s to at least one of the two layers, identical in composition, of a base material, at a pressure \leq 12 bar with metering;

b) placing the two base material layers atop one another so as to enclose the at least one active substance applied, and irreversible joining of the layers with the at least one active substance therebetween under pressure of 2 to 10 ~~bar~~ bars to form a laminate; and

c) storing the laminate for predeterminable duration under defined conditions to effect migration of the at least one active substance into the base material layers and connection of the base material layers at their interfaces to form a single-layer homogeneous matrix in which the at least one active substance is substantially uniformly distributed.

Claims 4 - 15 - (Canceled)

Claim 16. (Currently amended) Process according to Claim 3, wherein the pressure in step b) is ~~from~~ 3 to 5 ~~bar~~ bars.

Claims 17 - 18 - (Canceled)

Claim 19. (New) Method for producing a monolithic single layer laminated sheet matrix containing a releasable ingredient, said method comprising performing the steps of:

- a) providing first and second matrix base layers, each of said first and second matrix base layers comprising a sheet, having opposite first and second surfaces, of an absorbent and permeable polymeric material capable of absorbing a flowable substance through said

first surface, diffusing said flowable substance throughout said polymeric material of said sheet, and uniformly and continuously diffusively releasing said flowable substance through said second surface for a predetermined period of time;

- b) providing a flowable substance having a viscosity of at least 1,000 mPa•s;

and further performing, in the indicated order, the steps of:

- c) storing said flowable substance in an enclosed vessel, in fluid communication with a plurality of distribution outlets, from which said flowable substance is controllably distributable;
- d) applying, through said distribution outlets, at a pressure not greater than 12 bars, to said first surface of said sheet of at least one of said first and second matrix base layers at a plurality of locations distributed over said first surface of said sheet, a predetermined amount of said flowable substance, sufficient to diffuse into said polymeric material of said sheets of said first and second matrix base layers, and to release a predetermined amount of said flowable substance through at least one of said second sheet surfaces, continuously for a predetermined period of time;

- e) contacting said first surface of said sheet of said first matrix base layer with said first surface of said sheet of said second matrix base layer;
- f) applying sufficient pressure to said contacted first and second matrix base layers to irreversibly fuse said first and second matrix base layers to one another with said flowable substance therebetween, forming a monolithic single layer laminate; and
- g) permitting said flowable material to diffuse through said permeable polymeric material of said sheet of each of said first and second matrix base layers, to effect a distribution of said flowable substance throughout said first and second matrix base layers under a diffusion driving force until a state of dynamic equilibrium is attained.

Claim 20. (New) Method according to claim 19, wherein said pressure in step (c) is 2 to 10 bars.

Claim 21. (New) Method according to claim 20, wherein said pressure in step (c) is 3 to 5 bars.

Claim 22. (New) Method according to claim 19, wherein step (f) is performed for a time of at least 48 hours, and at a temperature not exceeding a degradation temperature of said flowable substance.

Claim 23. (New) Method according to claim 22, wherein said temperature is 15 - 30 °C.

Claim 24. (New) Method according to claim 23, wherein said temperature is 20 - 24 °C.

Claim 25. (New) Method according to claim 19, wherein said flowable substance comprises an active ingredient.

Claim 26. (New) Method according to claim 25, wherein said active ingredient is selected from the group consisting of: crop protection agents, biocides, fertilizers, plant strengthening agents, cosmetically active agents, fragrances, and pharmaceutically active agents.

Claim 27. (New) Method according to claim 25, wherein said active ingredient comprises one selected from the group consisting of: dimethoate, imidacloprid, fenpropiidene, acephate, and acetamiprid.

Claim 28. (New) Method according to claim 25, wherein said active ingredient comprises one selected from the group consisting of: Z,E-9,12-tetradecadienol, Z,E-9,12-tetradecadien-1-yl acetate, and mixtures thereof.

Claim 29. (New) Method according to claim 25, wherein said active ingredient is selected from the group consisting of: a volatile substance having a measurable vapor pressure at ambient temperature; and a thermally labile substance having a degradation temperature or a temperature at which activity thereof decreases above 50 °C.

Claim 30. (New) Method according to claim 25, wherein said flowable substance further comprises a tackifier.

Claim 31. (New) Method according to claim 25, wherein said active ingredient is self-adhesive.

Claim 32. (New) Method according to claim 19, wherein in step (c), said flowable substance is applied to said first surface of said sheet of at least one of said first and second matrix base layers at a plurality of locations distributed over said first surface of said sheet in a predetermined pattern.

Claim 33. (New) Method according to claim 32, wherein said pattern comprises one selected from the group consisting of: stripes, dots, and geometric shapes.

Claim 34. (New) Method according to claim 19, wherein in step (a), said polymeric material of said first and second matrix base layers comprises at least one compound selected from the group consisting of: ethylene-vinyl acetate copolymers; styrene/butadiene/styrene (SBS) block copolymers; styrene/isoprene/styrene (SIS) block copolymers; polyisobutylenes; polyacrylates; polymethacrylates; polyvinyl esters; polyamide; polyesters; cellulosic compounds; and silicones.

Claim 35. (New) Method according to claim 19, wherein said sheet of each said first and second matrix base layers has a weight per unit area of 125 g/m^2 .

Claim 36. (New) Method according to claim 19, wherein at least one of said sheet of said first matrix base layer and said sheet of said second matrix base layer has a protective layer on at least one of its said first and second surfaces, such that when there is a protective layer on only one said surface, said protective layer is removable; and when there is a protective layer on each said surface, at least one of said protective layers is removable.

Claim 37. (New) Method according to claim 36, wherein said protective layers are peelable.

Claim 38. (New) Method according to claim 36, wherein said protective layers are selected from the group consisting of papers, plastics, and textiles.

Claim 39. (New) Method according to claim 38, wherein said protective layers are coated with silicone.

Claim 40. (New) Method according to claim 36, wherein said protective layer is removed from at least one sheet surface of one of said first and second matrix base layers before step (d).

Claim 41. (New) Method according to claim 36, wherein both said sheet of said first matrix base layer and said sheet of said second matrix base layer have a protective layer on at least one of their respective first and second surfaces.

Claim 42. (New) Method according to claim 41, wherein both said sheet of said first matrix base layer and said sheet of said second matrix base layer have a protective layer on both of their respective first and second surfaces.

Claim 43. (New) Method according to claim 19, wherein said sheet of said first matrix base layer and said sheet of said second matrix base layer are continuous strips.

Claim 44. (New) Method according to claim 43, wherein said strips are in rolls.

Claim 45. (New) Method according to claim 36, wherein at least one of said first and second surfaces of at least one of said sheet of said first matrix base layer and said sheet of said second matrix base layer has a support layer thereon.

Claim 46. (New) Method according to claim 36, wherein said protective layers have a thickness of 80 μm .

Claim 47. (New) Method according to claim 45, wherein said support layer has a thickness of 36 μm .

Claim 48. (New) Method according to claim 39, wherein said protective layer is a siliconized paper.

Claim 49. (New) Method according to claim 48, wherein said siliconized paper has a weight per unit area of 95 g/m^2 .

Claim 50. (New) Method according to claim 43, wherein said strips have a width of 54 mm.

Claim 51. (New) Method according to claim 25, wherein said flowable substance further comprises an additive.

Claim 52. (New) Method according to claim 51, wherein said additive is colloidal silica.

Claim 53. (New) Method according to claim 51, wherein said additive is a viscosity increasing agent.

Claim 54. (New) Method according to claim 52, wherein said flowable substance comprises 52.46 wt% dimethoate, 34.76 wt. % N-methylpyrrolidone, and 12.78 wt. % colloidal silica.

Claim 55. (New) Method according to claim 19, wherein there are three distribution outlets.